



SEQUENCE LISTING

<110> Danks, Mary K.
Potter, Philip M.
Houghton, Peter J.

<120> Compositions and Methods for Sensitizing and Inhibiting
Growth of Human Tumor Cells

<130> SJ-0011

<140> 09/622,568

<141> 2000-08-31

<150> 60/075,258

<151> 1998-02-19

<150> PCT/US99/03171

<151> 1999-02-12

<160> 30

<170> PatentIn Ver. 2.0

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<211> 34

<212> PRT

<213> Oryctolagus cuniculus

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<222> (7)

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<223> Description of Artificial Sequence: Synthetic

<400> 1

His Pro Ser Ala Pro Val Xaa Val Asp Thr Val His Gly Lys Val Leu

1

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10

15

Gly Lys Phe Val Ser Xaa Glu Gly Phe Ala Gln Pro Val Ala Lys Phe
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Xaa Gly

<210> 2

<211> 36

<212> PRT

<213> *Oryctolagus cuniculus*

<220>

<223> Description of Artificial Sequence: Synthetic

<400> 2

His Pro Ser Ala Pro Pro Val Val Asp Thr Val Lys Gly Lys Val Leu
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Gly Lys Phe Val Ser Leu Glu Gly Phe Ala Gln Pro Val Ala Val Phe
 20 25 30

Leu Gly Val Pro
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<210> 3

<211> 54

<212> PRT

<213> *Homo sapiens*

<220>

<223> Description of Artificial Sequence: Synthetic

<400> 3

Met Trp Leu Arg Ala Phe Ile Leu Ala Thr Leu Ser Ala Ser Ala Ala
 1 5 10 15

Trp Gly His Pro Ser Ser Pro Pro Val Val Asp Thr Val His Gly Lys
 20 25 30

Val Leu Gly Lys Phe Val Ser Leu Glu Gly Phe Ala Gln Pro Val Ala
 35 40 45

Ile Phe Leu Gly Ile Pro
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<210> 4
<211> 54
<212> PRT
<213> Rattus rattus

<220>
<223> Description of Artificial Sequence: Synthetic

<400> 4
Met Trp Leu Cys Ala Leu Val Trp Ala Ser Leu Ala Val Cys Pro Ile
1 5 10 15
Trp Gly His Pro Ser Ser Pro Pro Val Val Asp Thr Thr Lys Gly Lys
20 25 30
Val Leu Gly Lys Tyr Val Ser Leu Glu Gly Phe Thr Gln Pro Val Ala
35 40 45
Val Phe Leu Gly Val Pro
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<210> 5
<211> 54
<212> PRT
<213> Mus musculus

<220>
<223> Description of Artificial Sequence: Synthetic

<400> 5
Met Trp Leu His Ala Leu Val Trp Ala Ser Leu Ala Val Cys Pro Ile
1 5 10 15
Leu Gly His Ser Leu Leu Pro Pro Val Val Asp Thr Thr Gln Gly Lys
20 25 30
Val Leu Gly Lys Tyr Ile Ser Leu Glu Gly Phe Glu Gln Pro Val Ala
35 40 45
Val Phe Leu Gly Val Pro
50

<210> 6
<211> 5
<212> PRT
<213> Oryctolagus cuniculus

<220>
<223> Description of Artificial Sequence: Synthetic

<400> 6
His Pro Ser Ala Pro
1 5

<210> 7
<211> 14
<212> DNA
<213> Oryctolagus cuniculus

<220>
<223> Description of Artificial Sequence: Synthetic

<400> 7
cacccaagcg cacc

14

<210> 8
<211> 14
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic

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<400> 8
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<210> 9
<211> 14
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<213> Artificial Sequence

<220>
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<221> modified_base

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<400> 9

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14

<210> 10

<211> 7

<212> PRT

<213> Oryctolagus cuniculus

<220>

<223> Description of Artificial Sequence: Synthetic

<400> 10

Ala Phe Trp Thr Glu Leu Trp

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<210> 11

<211> 21

<212> DNA

<213> Oryctolagus cuniculus

<220>

<223> Description of Artificial Sequence: Synthetic

<400> 11

gcattctgga cagaactatg g

21

<210> 12

<211> 21

<212> DNA

<213> Oryctolagus cuniculus

<220>
<223> Description of Artificial Sequence: Synthetic

<400> 12
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21

<210> 13
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
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<400> 13
ccanagtccn gtccagaang c

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<210> 14
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<212> DNA
<213> Artificial Sequence

<220>
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<400> 14

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21

<210> 15

<211> 30

<212> PRT

<213> Rattus rattus

<220>

<223> Description of Artificial Sequence: Synthetic

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Trp	Gly	His	Pro	Ser	Ala	Pro	Pro	Val	Val	Asp	Thr	Val	Lys
			20					25					30

<210> 16

<211> 30

<212> PRT

<213> Rattus sp.

<220>

<223> Description of Artificial Sequence: Synthetic

<400> 16

Met	Trp	Leu	Cys	Ala	Leu	Val	Trp	Ala	Ser	Leu	Ala	Val	Cys	Pro	Ile
1				5					10					15	

Trp	Gly	His	Pro	Ser	Ser	Pro	Pro	Val	Val	Asp	Thr	Thr	Lys
			20					25					30

<210> 17

<211> 30

<212> PRT

<213> Homo sapiens

<220>

<223> Description of Artificial Sequence: Synthetic

<400> 17

Met	Trp	Leu	Arg	Ala	Phe	Ile	Leu	Ala	Thr	Leu	Ser	Ala	Ser	Ala	Ala
1				5					10					15	

Trp Gly His Pro Ser Ser Pro Pro Val Val Asp Thr Val His
20 25 30

<210> 18
<211> 30
<212> PRT
<213> Rattus rattus

<220>
<223> Description of Artificial Sequence: Synthetic

<400> 18
Met Arg Leu Tyr Pro Leu Val Trp Leu Phe Leu Ala Ala Cys Thr Ala
1 5 10 15

Trp Gly Tyr Pro Ser Ser Pro Pro Val Val Asn Thr Val Lys
20 25 30

<210> 19
<211> 30
<212> PRT
<213> Mus musculus

<220>
<223> Description of Artificial Sequence: Synthetic

<400> 19
Met Trp Leu His Ala Leu Val Trp Ala Ser Leu Ala Val Cys Pro Ile
1 5 10 15

Leu Gly His Ser Leu Leu Pro Pro Val Val Asp Thr Thr Gln
20 25 30

<210> 20
<211> 1717
<212> DNA
<213> Oryctolagus cuniculus

<220>
<223> Description of Artificial Sequence: Synthetic

<400> 20
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gaagaacacc acctcctacc ctcccatgtg ctcccaggac gcagtatcag ggcatatgct 300
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<210> 21

<211> 565

<212> PRT

<213> *Oryctolagus cuniculus*

<220>

<223> Description of Artificial Sequence: Synthetic

<400> 21

Met Trp Leu Cys Ala Leu Ala Leu Ala Ser Leu Ala Ala Cys Thr Ala

1

5

10

15

Trp Gly His Pro Ser Ala Pro Pro Val Val Asp Thr Val His Gly Lys

20

25

30

Val Leu Gly Lys Phe Val Ser Leu Glu Gly Phe Ala Gln Pro Val Ala

35

40

45

Val Phe Leu Gly Val Pro Phe Ala Lys Pro Pro Leu Gly Ser Leu Arg

50

55

60

Phe	Ala	Pro	Pro	Gln	Pro	Ala	Glu	Ser	Trp	Ser	His	Val	Lys	Asn	Thr	
65					70					75					80	
Thr	Ser	Tyr	Pro	Pro	Met	Cys	Ser	Gln	Asp	Ala	Val	Ser	Gly	His	Met	
				85					90					95		
Leu	Ser	Glu	Leu	Phe	Thr	Asn	Arg	Lys	Glu	Asn	Ile	Pro	Leu	Lys	Phe	
			100					105					110			
Ser	Glu	Asp	Cys	Leu	Tyr	Leu	Asn	Ile	Tyr	Thr	Pro	Ala	Asp	Leu	Thr	
		115					120					125				
Lys	Arg	Gly	Arg	Leu	Pro	Val	Met	Val	Trp	Ile	His	Gly	Gly	Gly	Leu	
	130					135					140					
Met	Val	Gly	Gly	Ala	Ser	Thr	Tyr	Asp	Gly	Leu	Ala	Leu	Ser	Ala	His	
145					150					155					160	
Glu	Asn	Val	Val	Val	Val	Thr	Ile	Gln	Tyr	Arg	Leu	Gly	Ile	Trp	Gly	
				165					170					175		
Phe	Phe	Ser	Thr	Gly	Asp	Glu	His	Ser	Arg	Gly	Asn	Trp	Gly	His	Leu	
			180					185					190			
Asp	Gln	Val	Ala	Ala	Leu	Arg	Trp	Val	Gln	Asp	Asn	Ile	Ala	Asn	Phe	
		195					200					205				
Gly	Gly	Asp	Pro	Gly	Ser	Val	Thr	Ile	Phe	Gly	Glu	Ser	Ala	Gly	Gly	
	210					215					220					
Gln	Ser	Val	Ser	Ile	Leu	Leu	Leu	Ser	Pro	Leu	Thr	Lys	Asn	Leu	Phe	
225					230					235					240	
His	Arg	Ala	Ile	Ser	Glu	Ser	Gly	Val	Ala	Leu	Leu	Ser	Ser	Leu	Phe	
				245					250					255		
Arg	Lys	Asn	Thr	Lys	Ser	Leu	Ala	Glu	Lys	Ile	Ala	Ile	Glu	Ala	Gly	
			260					265					270			
Cys	Lys	Thr	Thr	Thr	Ser	Ala	Val	Met	Val	His	Cys	Leu	Arg	Gln	Lys	
		275					280					285				
Thr	Glu	Glu	Glu	Leu	Met	Glu	Val	Thr	Leu	Lys	Met	Lys	Phe	Met	Ala	
	290					295					300					
Leu	Asp	Leu	Val	Gly	Asp	Pro	Lys	Glu	Asn	Thr	Ala	Phe	Leu	Thr	Thr	
305					310					315					320	

Val Ile Asp Gly Val Leu Leu Pro Lys Ala Pro Ala Glu Ile Leu Ala
 325 330 335

Glu Lys Lys Tyr Asn Met Leu Pro Tyr Met Val Gly Ile Asn Gln Gln
 340 345 350

Glu Phe Gly Trp Ile Ile Pro Met Gln Met Leu Gly Tyr Pro Leu Ser
 355 360 365

Glu Gly Lys Leu Asp Gln Lys Thr Ala Thr Glu Leu Leu Trp Lys Ser
 370 375 380

Tyr Pro Ile Val Asn Val Ser Lys Glu Leu Thr Pro Val Ala Thr Glu
 385 390 395 400

Lys Tyr Leu Gly Gly Thr Asp Asp Pro Val Lys Lys Lys Asp Leu Phe
 405 410 415

Leu Asp Met Leu Ala Asp Leu Leu Phe Gly Val Pro Ser Val Asn Val
 420 425 430

Ala Arg His His Arg Asp Ala Gly Ala Pro Thr Tyr Met Tyr Glu Tyr
 435 440 445

Arg Tyr Arg Pro Ser Phe Ser Ser Asp Met Arg Pro Lys Thr Val Ile
 450 455 460

Gly Asp His Gly Asp Glu Ile Phe Ser Val Leu Gly Ala Pro Phe Leu
 465 470 475 480

Lys Glu Gly Ala Thr Glu Glu Glu Ile Lys Leu Ser Lys Met Val Met
 485 490 495

Lys Tyr Trp Ala Asn Phe Ala Arg Asn Gly Asn Pro Asn Gly Glu Gly
 500 505 510

Leu Pro Gln Trp Pro Ala Tyr Asp Tyr Lys Glu Gly Tyr Leu Gln Ile
 515 520 525

Gly Ala Thr Thr Gln Ala Ala Gln Lys Leu Lys Asp Lys Glu Val Ala
 530 535 540

Phe Trp Thr Glu Leu Trp Ala Lys Glu Ala Ala Arg Pro Arg Glu Thr
 545 550 555 560

Glu His Ile Glu Leu
 565

<210> 22
<211> 6
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic

<400> 22
cacgtg

6

<210> 23
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic

<400> 23
ggcaggaatt ctgccatgtg gctctg

26

<210> 24
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic

<400> 24
cggaattca cattcacagc tcaatgt

27

<210> 25
<211> 6
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic

<400> 25
cacctg

6

<210> 26
<211> 543

<212> PRT

<213> Oryctolagus cuniculus

<220>

<223> Description of Artificial Sequence: Synthetic

<400> 26

Met	Trp	Leu	Cys	Ala	Leu	Ala	Leu	Ala	Ser	Leu	Ala	Ala	Cys	Thr	Ala	
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Trp	Gly	His	Pro	Ser	Ala	Pro	Pro	Val	Val	Asp	Thr	Val	His	Gly	Lys	
			20					25					30			
Val	Leu	Gly	Lys	Phe	Val	Ser	Leu	Glu	Gly	Phe	Ala	Gln	Pro	Val	Ala	
		35					40					45				
Val	Phe	Leu	Gly	Val	Pro	Phe	Ala	Lys	Pro	Pro	Leu	Gly	Ser	Leu	Arg	
	50					55					60					
Phe	Ala	Pro	Pro	Gln	Pro	Ala	Glu	Ser	Trp	Ser	His	Val	Lys	Asn	Thr	
65					70					75					80	
Thr	Ser	Tyr	Pro	Pro	Met	Cys	Ser	Gln	Asp	Ala	Val	Ser	Gly	His	Met	
				85					90					95		
Leu	Ser	Glu	Leu	Phe	Thr	Asn	Arg	Lys	Glu	Asn	Ile	Pro	Leu	Lys	Phe	
			100					105					110			
Ser	Glu	Asp	Cys	Leu	Tyr	Leu	Asn	Ile	Tyr	Thr	Pro	Ala	Asp	Leu	Thr	
		115					120					125				
Lys	Arg	Gly	Arg	Leu	Pro	Val	Met	Val	Trp	Ile	His	Gly	Gly	Gly	Leu	
	130					135					140					
Met	Val	Gly	Gly	Ala	Ser	Thr	Tyr	Asp	Gly	Leu	Ala	Leu	Ser	Ala	His	
145					150					155					160	
Glu	Asn	Val	Val	Val	Val	Thr	Ile	Gln	Tyr	Arg	Leu	Gly	Ile	Trp	Gly	
				165					170					175		
Phe	Phe	Ser	Thr	Gly	Asp	Glu	His	Ser	Arg	Gly	Asn	Trp	Gly	His	Leu	
			180					185					190			
Asp	Gln	Val	Ala	Ala	Leu	Arg	Trp	Val	Gln	Asp	Asn	Ile	Ala	Asn	Phe	
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Gly	Gly	Asp	Pro	Gly	Ser	Val	Thr	Ile	Phe	Gly	Glu	Ser	Ala	Gly	Gly	
	210					215					220					

Gln Ser Val Ser Ile Leu Leu Leu Ser Pro Leu Thr Lys Asn Leu Phe
 225 230 235 240
 His Arg Ala Ile Ser Glu Ser Gly Val Ala Leu Leu Ser Ser Leu Phe
 245 250 255
 Arg Lys Asn Thr Lys Ser Leu Ala Glu Lys Ile Ala Ile Glu Ala Gly
 260 265 270
 Cys Lys Thr Thr Thr Ser Ala Val Met Val His Cys Leu Arg Gln Lys
 275 280 285
 Thr Glu Glu Glu Leu Met Glu Val Thr Leu Lys Met Lys Phe Met Ala
 290 295 300
 Leu Asp Leu Val Gly Asp Pro Lys Glu Asn Thr Ala Phe Leu Thr Thr
 305 310 315 320
 Val Ile Asp Gly Val Leu Leu Pro Lys Ala Pro Ala Glu Ile Leu Ala
 325 330 335
 Glu Lys Lys Tyr Asn Met Leu Pro Tyr Met Val Gly Ile Asn Gln Gln
 340 345 350
 Glu Phe Gly Trp Ile Ile Pro Met Gln Met Leu Gly Tyr Pro Leu Ser
 355 360 365
 Glu Gly Lys Leu Asp Gln Lys Thr Ala Thr Glu Leu Leu Trp Lys Ser
 370 375 380
 Tyr Pro Ile Val Asn Val Ser Lys Glu Leu Thr Pro Val Ala Thr Glu
 385 390 395 400
 Lys Tyr Leu Gly Gly Thr Asp Asp Pro Val Lys Lys Lys Asp Leu Phe
 405 410 415
 Leu Asp Met Leu Ala Asp Leu Leu Phe Gly Val Pro Ser Val Asn Val
 420 425 430
 Ala Arg His His Arg Asp Ala Gly Ala Pro Thr Tyr Met Tyr Glu Tyr
 435 440 445
 Arg Tyr Arg Pro Ser Phe Ser Ser Asp Met Arg Pro Lys Thr Val Ile
 450 455 460
 Gly Asp His Gly Asp Glu Ile Phe Ser Val Leu Gly Ala Pro Phe Leu
 465 470 475 480

Lys Glu Gly Ala Thr Glu Glu Glu Ile Lys Leu Ser Lys Met Val Met
485 490 495

Lys Tyr Trp Ala Asn Phe Ala Arg Asn Gly Asn Pro Asn Gly Glu Gly
500 505 510

Leu Pro Gln Trp Pro Ala Tyr Asp Tyr Lys Glu Gly Tyr Leu Gln Ile
515 520 525

Gly Ala Thr Thr Gln Ala Ala Gln Lys Leu Lys Asp Lys Glu Val
530 535 540

<210> 27

<211> 2191

<212> DNA

<213> Homo sapiens

<220>

<223> Description of Artificial Sequence: Synthetic

<400> 27

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<210> 28

<211> 559

<212> PRT

<213> Homo sapiens

<220>

<223> Description of Artificial Sequence: Synthetic

<400> 28

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Met Arg Leu His Arg Leu Arg Ala Arg Leu Ser Ala Val Ala Cys Gly
  1              5              10              15

```

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Leu Leu Leu Leu Leu Val Arg Gly Gln Gly Gln Asp Ser Ala Ser Pro
      20              25              30

```

```

Ile Arg Thr Thr His Thr Gly Gln Val Leu Gly Ser Leu Val His Val
    35              40              45

```

```

Lys Gly Ala Asn Ala Gly Val Gln Thr Phe Leu Gly Ile Pro Phe Ala
    50              55              60

```

```

Lys Pro Pro Leu Gly Pro Leu Arg Phe Ala Pro Pro Glu Pro Pro Glu
    65              70              75              80

```

```

Ser Trp Ser Gly Val Arg Asp Gly Thr Thr His Pro Ala Met Cys Leu
      85              90              95

```

```

Gln Asp Leu Thr Ala Val Glu Ser Glu Phe Leu Ser Gln Phe Asn Met
    100              105              110

```

```

Thr Phe Pro Ser Asp Ser Met Ser Glu Asp Cys Leu Tyr Leu Ser Ile
    115              120              125

```

```

Tyr Thr Pro Ala His Ser His Glu Gly Ser Asn Leu Pro Val Met Val
    130              135              140

```


Trp	Ile	His	Gly	Gly	Ala	Leu	Val	Phe	Gly	Met	Ala	Ser	Leu	Tyr	Asp		
145					150					155						160	
Gly	Ser	Met	Leu	Ala	Ala	Leu	Glu	Asn	Val	Val	Val	Val	Ile	Ile	Gln		
				165					170						175		
Tyr	Arg	Leu	Gly	Val	Leu	Gly	Phe	Phe	Ser	Thr	Gly	Asp	Lys	His	Ala		
			180					185						190			
Thr	Gly	Asn	Trp	Gly	Tyr	Leu	Asp	Gln	Val	Ala	Ala	Leu	Arg	Trp	Val		
		195					200						205				
Gln	Gln	Asn	Ile	Ala	His	Phe	Gly	Gly	Asn	Pro	Asp	Arg	Val	Thr	Ile		
	210					215					220						
Phe	Gly	Glu	Ser	Ala	Gly	Gly	Thr	Ser	Val	Ser	Ser	Leu	Val	Val	Ser		
225					230					235					240		
Pro	Ile	Ser	Gln	Gly	Leu	Phe	His	Gly	Ala	Ile	Met	Glu	Ser	Gly	Val		
				245					250					255			
Ala	Leu	Leu	Pro	Gly	Leu	Ile	Ala	Ser	Ser	Ala	Asp	Val	Ile	Ser	Thr		
			260					265					270				
Val	Val	Ala	Asn	Leu	Ser	Ala	Cys	Asp	Gln	Val	Asp	Ser	Glu	Ala	Leu		
		275					280					285					
Val	Gly	Cys	Leu	Arg	Gly	Lys	Ser	Lys	Glu	Glu	Ile	Leu	Ala	Ile	Asn		
	290					295					300						
Lys	Pro	Phe	Lys	Met	Ile	Pro	Gly	Val	Val	Asp	Gly	Val	Phe	Leu	Pro		
305					310					315					320		
Arg	His	Pro	Gln	Glu	Leu	Leu	Ala	Ser	Ala	Asp	Phe	Gln	Pro	Val	Pro		
			325						330					335			
Ser	Ile	Val	Gly	Val	Asn	Asn	Asn	Glu	Phe	Gly	Trp	Leu	Ile	Pro	Lys		
			340					345					350				
Val	Met	Arg	Ile	Tyr	Asp	Thr	Gln	Lys	Glu	Met	Asp	Arg	Glu	Ala	Ser		
		355					360					365					
Gln	Ala	Ala	Leu	Gln	Lys	Met	Leu	Thr	Leu	Leu	Met	Leu	Pro	Pro	Thr		
	370					375					380						
Phe	Gly	Asp	Leu	Leu	Arg	Glu	Glu	Tyr	Ile	Gly	Asp	Asn	Gly	Asp	Pro		
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<223> Description of Artificial Sequence: Synthetic

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31